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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
STOCKTON, LAURA LYNNE	
ART UNIT	**PAPER NUMBER**
1626	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	03/28/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 03/28/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/821,667	SIRCAR ET AL.	
	Examiner	Art Unit	
	Laura L. Stockton, Ph.D.	1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 January 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) *5-25 and 27-32* is/are withdrawn from consideration.

5)☒ Claim(s) *33* is/are allowed.

6)☒ Claim(s) *1-4 and 26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *1/12/2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-33 are pending in the application. The Advisory Action sent February 12, 2007 was in error due to a processing mistake and should be disregarded. This Office Action supersedes the improper Advisory Action.

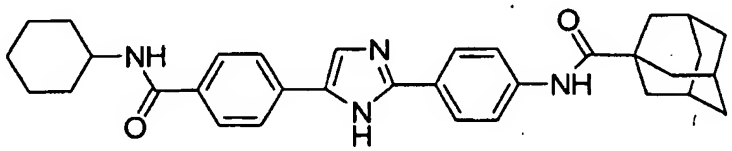
Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 12, 2007 has been entered.

Election/Restrictions

Applicant's election without traverse of Group I, and the species of Compound 127 on page 70, paragraph [0248], of the instant specification (reproduced below), in the reply filed on March 6, 2006 was acknowledged in a previous Office Action.

N-Cyclohexyl-4-(2-(4-(1-adamantanamido)phenyl)-1H-imidazol-5-yl)benzamide (127)



127

The requirement was deemed proper and therefore made FINAL in a previous Office Action.

Claims 5-25 and 27-32 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being

drawn to nonelected inventions. Election was made **without** traverse in the reply filed on March 6, 2006.

In response to Applicant's inquiry concerning rejoinder, in accordance with M.P.E.P. §821.04 and *In re Ochiai*, 71 F.3d 1565, 37 USPQ 1127 (Fed. Cir. 1995), rejoinder of product claims with process claims commensurate in scope with the allowed product claims will occur following a finding that the product claims are allowable. Until, such time, a restriction between product claims and process claims is deemed proper. Additionally, in order to retain the right to rejoinder in accordance with the above policy, Applicant is advised that the process claims should be amended during prosecution to maintain either dependency on the product claims or to otherwise include the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.**

Information Disclosure Statement

The Examiner has considered the Information Disclosure Statement filed on January 12, 2007.

Rejections made in the previous Office Action that do not appear below have been overcome by Applicant's amendments to the claims. Therefore, arguments pertaining to these rejections will not be addressed.

Claims 1-4 and 26 were amended by a previous amendment to recite a pharmaceutical composition. Since independent claim 1 and dependent claims 2 and 3 do not recite an additional ingredient, these claims are interpreted as compound claims.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-4 and 26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In *In re Wands*, 8 USPQ2d 1400 (1988), factors to be considered in determining whether a disclosure meets the enablement requirement of 35 U.S.C. § 112, first paragraph, have been described. They are:

1. the nature of the invention,
2. the state of the prior art,
3. the predictability or lack thereof in the art,

4. the amount of direction or guidance present,

5. the presence or absence of working examples,

6. the breadth of the claims,

7. the quantity of experimentation needed, and

8. the level of the skill in the art.

The nature of the invention

Applicant is claiming a product of formulas of Genus 1, Genus 2, Genus 3 or Genus 4 for treating or preventing an allergic reaction associated with increased IgE levels or for inhibiting NF-κB mediated cellular proliferation. See, for example, instant claim 1. From the reading of the specification, it appears that Applicant is asserting that the embraced products, because of their mode action which involves lowering IgE levels, may be useful for treating or preventing an allergic reaction associated with increased IgE levels or for inhibiting NF-κB mediated

cellular proliferation such as cancer, stroke, coronary heart disease, etc.

The state of the prior art and the predictability or lack thereof in the art

The state of the prior art is that cancer therapy, for example, remains highly unpredictable. The various types of cancers have different causative agents, involve different cellular mechanisms, and consequently, differ in treatment protocol. It is known (see Golub et al., Science, Vol. 286, October 15, 1999, pages 531-537) that the challenge of cancer treatment has been to target specific therapies to pathogenetically distinct tumor types, to maximize efficacy and minimize toxicity. Cancer classification has been based primarily on morphological appearance of the tumor and that tumors with similar histopathological appearance can follow significantly different clinical courses and show different responses to therapy (Golub et al., Science, Vol. 286, October

15, 1999, pages 531-537). There is no absolute predictability even in view of the seemingly high level of skill in the art. The existence of these obstacles establishes that the contemporary knowledge in the art would prevent one of ordinary skill in the art from accepting any therapeutic regimen on its face.

The amount of direction or guidance present and the presence or absence of working examples

There is no evidence of record, which would enable the skilled artisan in the identification of the people who have the potential of becoming afflicted with the numerous diseases or disorders disclosed herein. That a single class of compounds can be used to treat or prevent an allergic reaction associated with increased IgE levels or for inhibiting NF-κB mediated cellular proliferation all diseases embraced by the claims is an incredible finding for which Applicant has not provided supporting evidence. Applicant has not provided any competent evidence or disclosed tests that are highly

predictive for the pharmaceutical use for treating or preventing any or all conditions by the instant claimed products.

The breadth of the claims

The breadth of the claims is treating or preventing of all diseases and disorders generically embraced in the claim language.

The quantity of experimentation needed

The nature of the pharmaceutical arts is that it involves screening *in vitro* and *in vivo* to determine which products exhibit the desired pharmacological activities for each of the diseases and disorders embraced by the instant claims. The quantity of experimentation needed would be undue when faced with the lack of direction and guidance present in the instant specification in regards to testing all diseases and disorders generically embraced in the claim language, and when faced with the unpredictability of the pharmaceutical art. Thus,

factors such as "sufficient working examples", "the level of skill in the art" and predictability, etc. have been demonstrated to be sufficiently lacking in the instant case for the instant method claims.

The level of the skill in the art

Even though the level of skill in the pharmaceutical art is very high, based on the unpredictable nature of the invention and state of the prior art and lack of guidance and direction, one skilled in the art could not use the claimed invention without undue experimentation.

Response to Arguments

Applicant's arguments filed January 12, 2007 have been fully considered but they are not persuasive. Applicant argues that: (1) the instant disclosure is sufficient to enable those skilled in the art to make and use the invention without undue experimentation; (2) the pharmaceutical compositions are limited to

those for treating or preventing allergic reactions that are associated with an increase in IgE levels and not any and all allergic reactions; (3) it has been demonstrated, for instance in Example 2 (page 73), that the disclosed compounds are effective in both suppressing IgE response and lowering antigen-induced increases in IgE concentration *ex vivo* and *in vivo*; (4) it is well known to those skilled in the art of allergy treatment that certain allergic reactions are caused by an increase in IgE levels that can lead to various allergy symptoms and that reducing the IgE concentration or suppressing IgE response could be useful in treating and preventing those allergic reactions associated with an increase in IgE levels; and (5) in Example 3 (pages 74-75),the specification discloses the in vitro test results on the anti-proliferation driven by NF-κB mediated cellular proliferation.

Applicant's arguments, and references, have been considered but have not been found persuasive. The instant claims are directed to treating or preventing an allergic reaction associated with increased IgE levels. The references, and even Applicant's arguments, provide enablement for treating an allergic reaction but not preventing an allergic reaction. In regard to the claims embracing inhibiting NF-κB mediated cellular proliferation, Applicant has not persuasively demonstrated that the compounds of Genus 1 or Genus 2 or Genus 3 or Genus 4 can treat NF-κB mediated cellular proliferation much less prevent NF-κB mediated cellular proliferation. On page 75 of the instant specification {paragraph [0263]}, under Example 3, it is stated, "Only a handful of cell lines were inhibited by 100nM or less of each compound". The cell lines were not identified. The only cell lines that were specifically mention were the spleen and lymphoma cells {paragraphs [0261] and [0262]} and breast cancer

cells {paragraph [0263]}. Therefore, the rejections is deemed proper and is maintained.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masukawa et al. {U.S. Pat. 5,017,467} and Ninomiya et al. {EP 353,606}, each taken alone.

Determination of the scope and content of the prior art (MPEP §2141.01)

Applicant claims imidazole compounds. Masukawa et al. (Formula I in column 2; and Example 31 in columns

11-12) and Ninomiya et al. (Formula I on pages 2-3; and Compound 7 on page 5) each teach imidazole compounds that are structurally similar to the instant claimed compounds.

Ascertainment of the difference between the prior art and the claims (MPEP §2141.02)

The difference between the compounds of the prior art and the compounds instantly claimed is that the instant claimed compounds are generically described in the prior art.

Finding of prima facie obviousness--rational and motivation (MPEP §2142-2413)

The indiscriminate selection of "some" among "many" is *prima facie* obvious, *In re Lemin*, 141 USPQ 814 (1964). The motivation to make the claimed compounds derives from the expectation that structurally similar compounds would possess similar activity (e.g., a cyan coupler).

One skilled in the art would thus be motivated to prepare products embraced by the prior art to arrive at the instant claimed products with the expectation of obtaining additional beneficial products which would be useful as, for example, a cyan coupler. The instant claimed invention would have been suggested and therefore, obvious to one skilled in the art.

Response to Arguments

Applicant's arguments filed January 12, 2007 have been fully considered but they are not persuasive. Applicant argues that: (1) the cited prior art references fail to teach or suggest all claim limitations; (2) the situation here is distinguishable from *In re Dillon*, 16 U.S.P.Q. 2d 1897, 1904 (Fed. Cir. 1990); and (3) the instant claimed compounds possess unexpected improved properties or properties that the prior art does not have.

Applicant's argument has been considered but has not been found persuasive. Applicant is claiming a compound, not a composition nor method of use. Recitation of the intended utility into the preamble of a compound claim which can otherwise stand alone is not considered a further limitation of the claim. *In re Spada*, 911 F.2d 705, 15 USPQ.2d 1655 (Fed. Cir. 1990).

Additionally, it is disagreed that the situation here is distinguishable from *In re Dillon* since there is no requirement that the prior art must suggest that the claimed product will have the same or similar utility as that discovered by Applicant in order to support a legal conclusion of obviousness. An obviousness rejection is proper under *Dillon* so long as the prior art suggests a reason or provides motivation to make the claimed invention, even where the reason or motivation is based on a difference from that discovered by Applicant. As the *Dillon* opinion notes,

the Applicant then has the burden and opportunity to present relevant evidence to overcome the rejection.

In response to the argument of unexpected properties alleged by Applicant, Applicant has not provided factual persuasive support in a side by side showing that the instant claimed compounds have unexpected improved properties or properties that the prior art does not have. For all the reasons given above, the rejection is deemed proper and therefore, the rejection is maintained.

Allowable Subject Matter

The elected species of Compound 127 is allowable over the art of record.

Claim 33 is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura L. Stockton whose telephone number is (571) 272-0710. The examiner can normally be reached on Monday-Friday from 6:15 am to 2:45 pm. If the examiner is out of the Office, the examiner's supervisor, Joseph McKane, can be reached on (571) 272-0699.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

The Official fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Patent Examiner
Art Unit 1626, Group 1620
Technology Center 1600

March 19, 2007